

Claims

1. A system for providing data communication between modules connected through a port connector, wherein said modules are adapted to communicate a data package comprising in a layered structure a physical layer comprising a first and a second segment for encapsulating other layers in said data package, a data link layer comprising a first header field for data payload type and a second header field for a data link layer version, and a network/transport layer comprising a third header field for a transmitting module's address, a fourth header field for a length of said data package, and comprising data payload.
2. A system according to claim 1, wherein said modules comprise a mobile communication device such as a cell, mobile or satellite telephone, a personal digital assistant, or a peripheral thereto.
3. A system according to claims 1 or 2, wherein said data link layer version comprises a major version, which is binary incompatible, and a minor version, which is binary compatible.
4. A system according to claims 1 to 3, wherein said data package further comprises in said network/transport layer a fifth header field for an offset value for determination of data payload start in said data package.
5. A system according to claims 1 to 4, wherein said data package further comprises in said network/transport layer a sixth header field prior to said data payload start in said data package for buffering.

6. A system according to claims 1 to 5, wherein said data package further comprises a checksum field following the data payload.

5 7. A system according to claims 1 to 6, wherein said data package further comprises in said network/transport layer a seventh header field for a data package number.

10 8. A system according to claims 1 to 7, wherein said data package further comprises in said network/transport layer an eighth header field for a data package fragment sequence number.

15 9. A system according to claims 1 to 8, wherein said first segment of said physical layer comprises a media field for defining media across which the data package is transferred.

20 10. A system according to claims 1 to 9, wherein said first segment further comprises a synchronization field for synchronizing the receiving module with the transmitting module.

25 11. A system according to claims 1 to 10, wherein said second segment of the physical layer comprises an index byte for providing the receiving module with information regarding segmentation or partitioning of data contained in a message.

30 12. A system according to claims 1 to 11, wherein said second segment further comprises a sequence and acknowledge field for providing a receiving module with information whether said data package is an acknowledgement message or an ordinary message.

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13. A system according to claims 1 to 11, wherein said second segment further comprises a sequence and acknowledge field is adapted to inform whether an error was identified in the received data package, when said data package is an
5 acknowledgement message.

14. A system according to claims 12 or 13, wherein said sequence and acknowledgement field is further adapted to inform a receiving module that a sequence number in said receiving
10 module should be reset.

15. A system according to claims 12 to 14, wherein said sequence and acknowledgement field is adapted to recognise acknowledgement messages and detect missing data packages.
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16. A system according to claims 1 to 15, wherein said second segment further comprises a fill field for ensuring that all data packages sent over said port connector contain an even amount of bytes.
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17. A system according to claims 1 to 16, wherein said second segment further comprises a parity field for storing parity calculated on the basis of the data package excluding the parity field.
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18. A data package for communicating between modules connected through a port connection, wherein said data package comprising in a layered structure physical layer data comprising a first and a second segment for encapsulating other layers in said data package, data link layer data in a first header field comprising data payload type and in a second header field comprising a data link layer version, and network/transport layer data in a third header field comprising a transmitting
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module's address, in a fourth header field comprising a length of said data package, and comprising data payload.

19. A data package according to claim 18 further comprising in
5 said network/transport layer a fifth header field for an offset value for determination of data payload start in said data package.

20. A data package according to claims 18 or 19 further
10 comprising in said network/transport layer a sixth header field prior to said data payload start in said data package for buffering.

21. A data package according to claims 18 to 20 further
15 comprising a checksum field following the data payload.

22. A data package according to claims 18 to 21 further
comprising in said network/transport layer a seventh header
field for a data package number.

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23. A data package according to claims 18 to 22 further
comprising in said network/transport layer an eighth header
field for a data package fragment sequence number.

24. A receiver unit adapted to receive a data package according
25 to any of claims 18 to 23.

25. A transmitter unit adapted to transmit a data package
according to any of claims 18 to 23.

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26. A method for establishing data communication between
modules connected through a port connection, wherein said
modules each communicate a data package comprising in a layered

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structure a physical layer comprising a first and a second segment for encapsulating other layers in said data package, and wherein said method comprising: providing in said data package in a data link layer a first header field for data payload type and a second header field for a data link layer version, providing in said data package in a network/transport layer a third header field for a transmitting module's address and a fourth header field for a length of said data package, and providing in said data package a data payload.

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27. A computer program comprising code adapted to perform the following steps when said program is run in a data processor adapted to establish data communication between modules connected through a port connection, wherein said plurality of modules each communicate a data package comprising in a layered structure having a physical layer comprising a first and a second segment for encapsulating other layers in said data package, and wherein said program providing in said data package in a data link layer a first header field for data payload type and a second header field for a data link layer version, providing in said data package in a network/transport layer a third header field for a transmitting module's address and a fourth header field for a length of said data package, and providing in said data package a data payload.

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